during the year was Rs. 20,93,170, the total expenditure up to the end of June 1916 being Rs. 92,39,373.

49. The investigations into the loss of capacity of major tanks due to silting are proceeding. Measures for the scientific regulation and economic distribution of water have been introduced under eight selected tanks, one in each district, with results which are reported to be satisfactory.

50. In the workshop of the Public Works Department at Bangalore, a beginning was made during the year in the manufacture of agricultural implements and machinery for industrial concerns. *The Workshop.*

Electrical Department.

51. The fourth installation of the Cauvery Power Scheme, designed to meet the additional requirements of the mining companies under the new agreement, was completed during the year. Interruptions in the power and lighting service have been minimised by the erection of new overhead wires along the transmission line. To meet the growing demand for the supply of power, an estimate amounting to Rs. 3,63,188 for a fifth installation was sanctioned during the year for a 4,000 H.P. unit at Sivasamudram. When this work is completed, the total output of power will be 22,650 H.P.

52. The capital outlay on the Cauvery Power Scheme during the year amounted to Rs. 3,37,100 and the total outlay inclusive of the expenditure on the fourth installation, to end of June 1916, aggregated Rs. 1,06,87,000 in round figures. The gross earnings amounted to Rs. 24,28,100 against Rs. 18,58,300 during 1914-15 showing an increase of Rs. 5,69,800 which, as already stated, is due to the fact that the supply of power to the mines has been increased and guaranteed as a result of the construction of the Cauvery Reservoir. The working expenses, including a sum of Rs. 2,98,200 credited to the depreciation fund, amounted to Rs. 7,21,000. The balance which amounts to Rs. 11,37,200 (excluding the portion of the revenue due to the Reservoir) represents a return of 10·64 per cent on the outlay as against 14·29 in the previous year.

Railway Department.

53. The year's results of the working of the State lines by the Madras and Southern Mahratta Railway

Company show that the gross earnings amounted to Rs. 38,28,883 which is about Rs. 2 lakhs more than in the previous year. The net return was Rs. 9,82,379 or 4 per cent on the outlay. As stated in my last year's Address, a portion of this return goes back to the railway itself, that is, for improvements to the open lines worked by the company. The net result of the year's transactions for the State is a return of $2\frac{1}{2}$ per cent on the outlay.

54. *Mysore-Arsikere Railway.*—The construction work on the Mysore-Arsikere Railway has been progressing satisfactorily. Plate-laying is being pushed on from both ends and the erection of girders on the Lakshmanthirtha bridge near Sagarkatte, which is the longest and highest on the line, will be started early. Owing to delay in getting the underframes and materials from England, and other unforeseen difficulties, the line could not be opened by the dates previously fixed. At the present rate of progress it may be possible to run through trains between Mysore and Arsikere by about June 1917.

Other Railways.—The Kolar-Chintamani Section of the Kolar District Board Railway was opened for passenger traffic on the 6th March 1916. The portion from Chintamani to Chikballapur is expected to be ready for passenger traffic next month. The line from Tarikere has been completed up to Narasimharajapura. On account of heavy rains in the *malnad*, passenger traffic has been temporarily stopped but will, it is hoped, be resumed in December 1916 when the line will have been brought up to standard.

Surveys.

55. Preliminary investigations were made about the possibility of a harbour at Bhatkal and further detailed investigations are under consideration. A reconnaissance survey is being made for locating a railway line down the Kogaru Ghat to Bhatkal. The work will be continued next working season.

A preliminary survey for a line on the metre gauge to connect Coorg with the Mysore railway system has been carried out and four alternative routes were carefully investigated. One of the lines will be shortly selected for carrying out a detailed survey.

Summary.

56. The results of the railway operations in the State may be summarised as follows :—

The total mileage open for traffic up to the end of 1911 was 411·17 miles and the capital cost of those lines was Rs. 2,51,64,185. Since then a Railway Depart-

ment has been organised. The total length of lines taken up for construction is 231 miles, and the outlay incurred thereon, up to the end of June 1916, was Rs. 85,72,401. The amount of money raised from the public for the smaller feeder lines is a little over Rs. 14 lakhs.

The following projects are ready for construction and their length and estimated cost are as noted below:—

Name of Railway	Length	Estimated cost
	Miles	Rs.
1. Chikjajur-Chitaldrug line ...	21	8·55 lakhs.
2. Kadur-Chikmagalur line ...	28	16·60 ,,
3. Chikmagalur-Hassan line ...	37	17·48 ,,
4. Bangalore-Hosur line ...	30·69	12·75 ,,

The projects under investigation are the Mysore-Coorg connection, the Shimoga-Bhatkal and Mysore-Kakankote lines, the Narasimharajapura-Sringeri extension and the Thadasa-Hebbe tramway.

Changes in the Department.

57. During the year, the offices of the Engineer-in-Chief and the Agent were combined with that of the Secretary for Railways. The Railway Board have kindly allowed Mr. G. Richards, Superintending Engineer, now employed in the investigation of railways to the west coast ports, to work as our Consulting Engineer.

Department of Mines and Geology.

58. The reorganization scheme sanctioned in February 1915 came fully into effect during the year. Special attention was paid to the exploration and investigation of minerals of economic value. A bulletin on the geology of Mysore with a map giving a summary of the results arrived at by the geological survey, was prepared and issued. Another bulletin on the mineral resources of the State, their modes of occurrence, methods of mining and extraction and possibilities has also been published for the use of the local public interested in mining work. A Kannada edition of this bulletin will shortly be ready.

The output of bar gold during 1915-16 was 558,381 ounces of an approximate value of Rs. 3,11,32,760 as against 570,886 ounces of a value of Rs. 3,28,65,540 in 1914-15. The royalty for 1915-16 was approximately Rs. 18,69,931 against Rs. 19,15,803 in 1914-15.